

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Currently amended) A method of administering to patients by injection or infusion a suspension of microparticles homogeneously distributed in an aqueous liquid carrier by means of an injector system comprising a syringe containing said suspension and a power driven piston for injecting said suspension into a patient, said method comprising:

subjecting the suspension in the syringe to a rotation or rocking motion,
thereby maintaining said suspension homogeneous by preventing
segregation of the microparticles by gravity or buoyancy, and without
damaging said particles or disturbing said distribution;
wherein said rotation or rocking motion is not caused by vibration
produced by a motor unconnected to the syringe.

2. (Currently amended) A method of administering to patients by injection or infusion a suspension of microparticles homogeneously distributed in an aqueous liquid carrier by means of an injector system comprising a syringe containing said suspension and a power driven piston for injecting said suspension into a patient, said method comprising:

subjecting the suspension in the syringe to a rotation or rocking motion,
thereby maintaining said suspension homogeneous by preventing
segregation of the microparticles by gravity or buoyancy, and without
damaging said particles or disturbing said distribution

wherein said rotation or rocking motion is caused by rotating or rocking the injector system or the syringe by a motor connected to said injector system or to said syringe, respectively.

~~The method of claim 1, in which said motion is provided by outside means for imparting motion to said particles, which motion is then transferred to said liquid carrier.~~

3. (Currently amended) The method of any one of claims 1 or 2, in which said motion of rocking or rotation is alternated.

4. (Original) The method of claim 3, in which said motion is applied along or around the syringe longitudinal or transverse axis.

5. (Currently amended) The method of ~~claim 4~~ claim 3, in which said ~~motion is provided~~ motion is applied along or around the syringe longitudinal or transverse axis, by subjecting the syringe to continuous or intermittent rotation.

6. (Currently amended) The method of claim ~~5~~ 3, in which said motion is applied along or around the syringe longitudinal or transverse axis, by subjecting the syringe to continuous or intermittent rotation ~~in which the~~ at a rotation rate ~~is from~~ of 0.5 to 200 rpm.

7. (Currently amended) The method of any one of claims 1 or 2, in which said motion is alternating rotation the direction of which is reversed every 30°, 60°, 90°, 180°, 270° or 360°.

8. (Original) The method of claim 7, in which the direction is alternated at a frequency of 0.5 Hz, 1.0 Hz, 1.5 Hz, 2.0 Hz, 2.5 Hz, 3.0 Hz or 3.5 Hz.

9. (Currently amended) The method of any one of claims 1 or 2, in which said motion is carried out stepwise.

10-21. (Canceled)

22. (Currently amended) The method of any one of claims 1 or 2, in which the suspension is a contrast agent for ultrasonic imaging of patients.

23. (Previously presented) The method of claim 22, in which the contrast agent comprises in suspension in an aqueous liquid carrier,

gas filled microvesicles which are either microbubbles bounded by a gas/liquid interface made from dissolved surfactants, or
microballoons bounded by a material envelope made of organic polymers, or of di- or tri- glycerides.

24. (Original) The method of claim 23, in which the gas is a pure physiologically acceptable halogenated gas or gas mixture comprising at least one physiologically acceptable halogenated gas.

25. (Original) The method of claim 24, in which the halogenated gas is selected from CF₄, C₂F₆, C₃F₈, C₄F₈, C₄F₁₀, C₅F₁₂, C₆F₁₄ or SF₆.

26. (Original) The method of claim 24, wherein the gas mixture contains a gas selected from air, oxygen, nitrogen, helium, xenon or carbon dioxide.

27. (Original) The method of claim 23, in which at least one of the surfactants is a saturated phospholipids in a lamellar or laminar form.

28. (Original) The method of claim 27, in which at least one of the phospholipids is a diacylphosphatidyl compound wherein the acyl group is a C₁₆ fatty acid residue or a higher homologue thereof.

29. (Original) The method of claim 23, in which the polymer of the membrane is selected from polylactic or polyglycolic acid and their copolymers, denatured serum albumin, denatured haemoglobin, polycyanoacrylate, and esters of polyglutamic and polyaspartic acids.

30. (Original) The method of claim 29, in which the microballons are filled with C_3F_8 and the material envelope is made from albumin.

31. (Original) The method of claim 23, in which the microballons are bounded by saturated triglycerides, preferably tristearine, tripalmitine or mixtures of thereof with other glycerides, fatty acids and biodegradable polymers.

32. (Currently amended) The method of any one of claims 1 or 2, in which the suspension is a contrast agent for CT imaging.

33. (Original) The method of claim 32, in which the contrast agent comprises as a suspension in a liquid carrier phase liposomes filled with an iodinated compound selected from iomeprol, iopamidol, iohexol, metrizamide, iopromide, iogulamide, iosimide or ioversol.

34. (Currently amended) The method of claim 33, in which the contrast agent comprises as a suspension in a liquid carrier phase liposomes filled with an iodinated compound selected from iomeprol, iopamidol, iohexol, metrizamide, iopromide, iogulamide, iosimide or ioversol, in which iodine over lipid ratio I/L is 3 or more.

35-38. (Canceled).

39. (Currently amended) A method of imaging organs, blood vessels or tissues of a mammal comprising administering to the mammal by injection or infusion a suspension of microparticles homogenously distributed in an aqueous liquid carrier by means of an injector system comprising a syringe containing said suspension and a power driven piston for injecting said suspension into a patient, comprising:

subjecting the suspension in the syringe to a rotation or rocking motion, thereby maintaining said suspension homogenous by preventing segregation of the microparticles by gravity or buoyancy, and without damaging said

particles or disturbing their distribution, wherein said rotation or rocking motion is not caused by vibration produced by a motor unconnected to the syringe, and thereafter

imaging the mammal.

40. (Currently amended) The method of any one of claims 39 or 46, in which the organ imaged is the heart, brain, kidney or liver.

41. (Currently amended) A method of CT imaging organs, blood vessels or tissue of a mammal comprising administering to the mammal by injection or infusion a suspension of microparticles homogeneously distributed in an aqueous liquid carrier by means of an injector system comprising a syringe containing said suspension and a power driven piston for injecting said suspension into a patient, said method comprising

subjecting the suspension in the syringe to a rotation or rocking motion, thereby maintaining said suspension homogenous by preventing segregation of the microparticles by gravity or buoyancy, and without damaging said particles or disturbing their distribution, wherein said rotation or rocking motion is not caused by vibration produced by a motor unconnected to the syringe, and thereafter

imaging the mammal.

42. (Currently amended) The method of any of claims 41 or 47, in which the liver is imaged.

43. (Previously presented) The method of claim 1, in which said rotation or rocking motion is imparted by means under motion for supporting the syringe.

44. (Previously presented) The method of claim 43, in which said means under motion are wheels in contact with the syringe.

45. (Previously presented) The method of claim 43, in which said means under motion comprise a supporting bracket for supporting the syringe, a portion of said supporting bracket being encompassed into a motor driven unit.

46. (New) A method of imaging organs, blood vessels or tissues of a mammal comprising administering to the mammal by injection or infusion a suspension of microparticles homogeneously distributed in an aqueous liquid carrier by means of an injector system comprising a syringe containing said suspension and a power driven piston for injecting said suspension into a patient, comprising:

subjecting the suspension in the syringe to a rotation or rocking motion, thereby maintaining said suspension homogeneous by preventing segregation of the microparticles by gravity or buoyancy, and without damaging said particles or disturbing their distribution, wherein said rotation or rocking motion is caused by rotating or rocking the injector system or the syringe by a motor connected to said injector system or to said syringe, respectively, and thereafter imaging the mammal.

47. (New) A method of CT imaging organs, blood vessels or tissue of a mammal comprising administering to the mammal by injection or infusion a suspension of microparticles homogeneously distributed in an aqueous liquid carrier by means of an injector system comprising a syringe containing said suspension and a power driven piston for injecting said suspension into a patient, said method comprising

subjecting the suspension in the syringe to a rotation or rocking motion, thereby maintaining said suspension homogenous by preventing segregation of the microparticles by gravity or buoyancy, and without damaging said particles or disturbing their distribution, wherein said rotation or rocking motion is caused by rotating or rocking the injector system or the syringe by a motor connected to said injector system or to said syringe, respectively, and thereafter imaging the mammal.